DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER PROTECTION BUREAU
Metcalf Building, Helena, Montana 59620
(406) 444-3080

ENVIRONMENTAL ASSESSMENT (EA)

Division/Bureau: Permitting & Compliance Division, MPDES Permits;

Project or Application: City of Harlem, Water Treatment Facility, Permit Renewal MT0000931

Description of Project: This is a reissuance of a wastewater discharge permit issued to the City of Harlem under the Montana Pollutant Discharge Elimination System (MPDES). The permittee creates wastewater through its treatment of Milk River water for its municipal water supply. Filter backwash water is generated periodically and could be discharged to the Mlk River. A discharge of wastewater from the Water Treatment Plant has not been reported for over 30 years. Wastewater could be discharged to the Milk River, a B-3 water-use classification stream as in the Montana Surface Quality Standards. The permittee is proposing upgrades to the treatment facility that would include settling ponds for wastewater produced through filter backwash.

Benefits and Purpose of Proposal:

Benefits from issuing this permit would ensure adequate treatment of wastewater generated through conventional surface water treatment before discharging to surface water. Re-issuance of this permit will allow for additional monitoring during the permit term.

Description and analysis of reasonable alternatives whenever alternatives are reasonably available and prudent to consider:

None

Listing and appropriate evaluation of mitigation, stipulations and other controls enforceable by this or another government agency:

None

Affected Environment and Effects from the Proposed Project:

Key to Rank	
NA	*Not applicable*
N	*No effects*
B	*Potentially beneficial effects*
A	*Potentially adverse effects*
M	*Corrective action required*
P	*Additional permits will be required*

Rank	Consideration	Remarks
	PHYSICAL AND BIOLOGICAL ENVIRONMENT	
N	1. SOIL SUITABILITY, TOPOGRAPHIC AND/OR GEOLOGIC CONSTRAINTS (soil moisture, unstable soils or geologic conditions, steep slopes, erosion potential, subsidence potential, seismic activity)	The facility is located adjacent to the Milk River and in its flood plain. Facility has been in this location for several decades. Underlying geology is Quaternary alluvial. Underlying soils are the classified as the Havre loam, Harlem loam, and Harlem silty-clay; all of these are rated as "somewhat limited" for sewage disposal sites (USDA, 2007). The USGS earthquake probability maps indicate between 0.05-0.10 probability of a 5 or greater moment magnitude (body-wave) occurring within the user entered time span of 50 years. The probably drops to 0.00-0.05 with a higher magnitude event (7.0) and increased time.

N	2.	HAZARDOUS FACILITIES (power lines, hazardous waste sites, distances from explosive and flammable hazards including chemical/petroleum storage tanks, underground fuel storage tanks and related facilities such as natural gas storage facilities and propane tanks)	Facility is primarily a domestic drinking water treatment facility that serves a small community with no significant industrial dischargers. No hazardous materials will be used or stored onsite.
N	3.	AIR QUALITY (effects to or from project, dust, odors, emissions)	Facility uses chlorine to disinfect municipal water supply. Facility is located south of Harlem and odors should be minimal.
N	4.	GROUNDWATER RESOURCES & AQUIFERS (quality/nondegradation, quantity/reliability, distribution, uses/rights, number of aquifers, mixing zones)	The GWIC database does not have but 4 well logs for wells drilled near (< 1 mi) from the facility. Wells depths range from 79' – 160'. Screened intervals are towards the bottoms of the wells. The well logs identify tight surface layers, or those comprised of clay. One well log for a well located near the facility shows 32' of "quick sand; that well is screened in a shale layer.
N	5.	SURFACE WATER RESOURCES (quality/nondegradation, quantity/reliability, distribution, uses/rights, storm water controls, source of community supply, community treatment, mixing zones)	Discharges are regulated by limits established in the permit. All pollutants discharged meet National Secondary Standards, Non-Degradation or Water Quality Based Effluent Limitations to protect the receiving water quality.
N	6.	VEGETATION AND WILDLIFE SPECIES AND HABITATS, INCLUDING FISHERIES AND AQUATIC RESOURCES (threatened, endangered, sensitive species, prime habitat, population stability, potential for human wildlife conflicts, effectiveness of post-disturbance plans)	A survey of the Natural Heritage Program identified eight vertebrate animals as species of concern within a 1-mi query radius of the WWTF. The long-billed curlew, black-tailed prairie dog, chestnut-collard longspur, Baird's sparrow, Sprague's pipit, sauger, and pearl dace have a state status and are listed as "sensitive" by the US Bureau of Land Management (the US Forest Service also lists the black-tailed prairie dog as "sensitive").
N	7.	UNIQUE, ENDANGERED, FRAGILE, OR LIMITED ENVIRONMENTAL RESOURCES (biologic, topographic, wetlands (within one mile), floodplains (within one mile), scenic rivers, natural resource areas, etc.)	No additional impacts to the environment will occur because the facility has long been established at the site. It should be noted, however, that the permitted site is located in the larger Bailey's Northwestern Glaciated Plains Section of the Great Plains-Palouse Dry Steppe Province. This area is an important ecological habitat because of the generally intact native plants and animal diversity, mostly due to the sparse human settlement, an range-based economy, and large public land holdings. The region is valued as a "Very High Priority Site" and has a "high conservation priority", as identified by the Natural Heritage Program.
N	8.	LAND USE (waste disposal, agricultural lands [grazing, cropland, forest lands, prime farmland], recreational lands [waterways, parks, playgrounds, open space, federal lands), access, commercial and industrial facilities [production & activity, growth or decline], growth, land-use change, development activity)	A facility expansion may result as from a planned upgrade. The expansion could include the addition of settling ponds for filter backwash water. The existing use of lands that could be affected are either irrigated crop land or presently unused city property.
N	9.	HISTORICAL, CULTURAL, & ARCHEOLOGICAL (sites, facilities, uniqueness, diversity)	The current facility has been in this location for several decades.
N	10.	AESTHETICS (visual quality, nuisances, odors, noise)	The drinking water facility has been in the current location for decades. Urban development is low.
N	11.	DEMANDS ON OR CHANGES IN ENVIRONMENTAL RESOURCES INCLUDING LAND, WATER, AIR, OR ENERGY USE (need for new or upgraded energy sources, potential for recycling, etc.) {See (4), (5), and (8).}	No impacts are expected.

Rank	Consideration		Remarks
IMPACTS ON THE HUMAN POPULATION			
NA	12.	CHANGES IN DEMOGRAPHIC CHARACTERISTICS (population quantity, distribution and density, rate of change)	No impacts are expected.
N	13.	GENERAL HOUSING CONDITIONS (quality, quantity and affordability)	No impacts are expected.
NA	14.	POTENTIAL FOR DISPLACEMENT OR RELOCATION OF BUSINESS OR RESIDENTS	None
N	15.	PUBLIC HEALTH AND SAFETY (medical services and facilities, police, fire protection and hazards [see (2)], emergency medical services [see (8), LAND USE for waste disposal])	Public health and safety will be improved by treating the wastewater prior to discharge.
N	16.	LOCAL EMPLOYMENT AND INCOME PATTERNS (quantity and distribution of employment, economic impact)	No changes to employment or income patterns are expected.
NA	17.	LOCAL AND STATE TAX BASE AND REVENUES	If, due to permit conditions, the facility fails to provide the level of treatment to prevent pollutants from being discharged to state waters, the facility may have to raise drinking water rates to cover development and construction costs.
NA	18.	EFFECTS ON SOCIAL STRUCTURES AND MORES (social conventions/standards of social conduct), DEMANDS ON SOCIAL SERVICES (law enforcement, educational facilities [libraries, schools, colleges, universities], welfare, etc.)	No impacts are expected at this time.
NA	19.	TRANSPORTATION NETWORK (condition and use of roads, traffic flow conflicts, rail, airport compatibility, etc.)	No impacts are expected at this time.
N	20.	CONSISTENCY WITH LOCAL ORDINANCES, RESOLUTIONS, OR PLANS (conformance with local comprehensive plans, zoning or capital improvement plans)	No impacts are expected at this time.
N	21.	REGULATORY RESTRICTIONS ON PRIVATE PROPERTY RIGHTS (*Are we regulating pursuant to a police power? Does the Agency action restrict the use of the property beyond the minimum necessary to achieve compliance with the Act? What are the costs of such additional restrictions resulting from proposed permit conditions? Are there other, less restrictive ways of achieving the same goal?* See your assigned legal counsel for assistance preparing this section. [See the Private Property Assessment Act checklist accompanying this permit for details.]	The limits set within the permit do not impose unnecessary demands on the Permittee at this time. Issuance of the permit will not affect private property.

Other groups or governmental agencies contacted or which may have overlapping jurisdiction:

None

Public Involvement:

Thirty-day public comment period, beginning in June 2007.

Individuals or groups contributing to this EA:

State of Montana, DEQ Permitting & Compliance Division

Summary of Issues:

See Statement of Basis

Summary of Potential Effects:

See Statement of Basis

Cumulative Effects:

None

Recommendation:

Grant the Surface Water Discharge permit

Recommendation for Further Environmental Analysis:

☐ Prepare an EIS ☐ Prepare a more detailed EA ☒ No further analysis

EA prepared by: Rebecca Ridenour Date: May 28, 2007

Bureau Check-off

AWMB _____	CSB _____	EMB _____
IEMB _____	WPB _____	Other _____

Approved by:

Bonnie Lovelace, Chief
Water Protection Bureau

_____ _____
(Signature) (Date)